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TECH CENTER 1600/2900

CRF3
07/05/02

1623 Page 1 of 8
#12



OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/890,811B

DATE: 07/05/2002

TIME: 15:37:23

Input Set : N:\Crf3\06122002\I890811A.raw

Output Set: N:\CRF3\07052002\I890811B.raw

C-->

1 <110> APPLICANT: Zhu, Qun
2 Famodu, Omolayo O.
3 <120> TITLE OF INVENTION: SPFl-Related Transcription Factors
4 <130> FILE REFERENCE: BB1436 PCT
5 <140> CURRENT APPLICATION NUMBER: US/09/890,811B
6 <141> CURRENT FILING DATE: 2002-05-07
7 <150> PRIOR APPLICATION NUMBER: 60/174325
8 <151> PRIOR FILING DATE: 2000-01-04
9 <160> NUMBER OF SEQ ID NOS: 14
10 <170> SOFTWARE: Microsoft Office 97
12 <210> SEQ ID NO: 1
13 <211> LENGTH: 512
14 <212> TYPE: DNA
15 <213> ORGANISM: Zea mays
16 <220> FEATURE:
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18 <222> LOCATION: (368)
19 <223> OTHER INFORMATION: n=a,c,g or t
20 <220> FEATURE:
21 <221> NAME/KEY: unsure
22 <222> LOCATION: (387)
23 <223> OTHER INFORMATION: n=a,c,g or t
24 <220> FEATURE:
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26 <222> LOCATION: (405)
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33 <221> NAME/KEY: unsure
34 <222> LOCATION: (445)
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36 <220> FEATURE:
37 <221> NAME/KEY: unsure
38 <222> LOCATION: (447)
39 <223> OTHER INFORMATION: n=a,c,g or t
40 <220> FEATURE:
41 <221> NAME/KEY: unsure
42 <222> LOCATION: (453)
43 <223> OTHER INFORMATION: n=a,c,g or t
44 <220> FEATURE:

ENTERED

RAW SEQUENCE LISTING

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TIME: 15:37:23

Input Set : N:\Crf3\06122002\I890811A.raw

Output Set: N:\CRF3\07052002\I890811B.raw

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47 <223> OTHER INFORMATION: n=a,c,g or t
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49 <221> NAME/KEY: unsure
50 <222> LOCATION: (489)..(491)
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53 <221> NAME/KEY: unsure
54 <222> LOCATION: (500)
55 <223> OTHER INFORMATION: n=a,c,g or t
56 <400> SEQUENCE: 1
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58      ttacaagtgc actcatccta atttgtgaagt taaaaagcta ttagagcggt cgcttgatgg 120
59      tcagattact gaagttgttt ataaagggca tcataatcat cccaagcccc aaccaaatag 180
60      aaggttagct gctgggtgcag ttccttcaag ccaggctgaa gaaagatacg atgggtgtggc 240
61      acctattgaa gacaaacctt caaatattta ttccaacctc tgtaaccaag cacattcagc 300
62      tggcatgggt gataatgttc cgggtccagc aagtgatgat gatgttgatg ctggagggtg 360
W--> 63      aagaccnacc cctgggggga tgactcnaat gatgatgatg acttnggnct caaaaacgca 420
W--> 64      aggaaaatgg aatctgccgg gtatncnatg ccnggctttg antggggtaa accaaatccc 480
W--> 65      ggagccccnn nttccttttn aaaaactggt tt 512
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68 <211> LENGTH: 170
69 <212> TYPE: PRT
70 <213> ORGANISM: Zea mays
71 <220> FEATURE:
72 <221> NAME/KEY: unsure
73 <222> LOCATION: (123)
74 <223> OTHER INFORMATION: Xaa = ANY AMINO ACID
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76 <221> NAME/KEY: unsure
77 <222> LOCATION: (129)
78 <223> OTHER INFORMATION: Xaa = ANY AMINO ACID
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81 <222> LOCATION: (135)..(136)
82 <223> OTHER INFORMATION: Xaa = ANY AMINO ACID
83 <220> FEATURE:
84 <221> NAME/KEY: unsure
85 <222> LOCATION: (148)..(149)
86 <223> OTHER INFORMATION: Xaa = ANY AMINO ACID
87 <220> FEATURE:
88 <221> NAME/KEY: unsure
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90 <223> OTHER INFORMATION: Xaa = ANY AMINO ACID
91 <220> FEATURE:
92 <221> NAME/KEY: unsure
93 <222> LOCATION: (154)
94 <223> OTHER INFORMATION: Xaa = ANY AMINO ACID

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RAW SEQUENCE LISTING

DATE: 07/05/2002

PATENT APPLICATION: US/09/890,811B

TIME: 15:37:23

Input Set : N:\Crif3\06122002\I890811A.raw

Output Set: N:\CRF3\07052002\I890811B.raw

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102 <223> OTHER INFORMATION: Xaa = ANY AMINO ACID
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105         1             5             10             15
106     Pro Arg Ser Tyr Tyr Lys Cys Thr His Pro Asn Cys Glu Val Lys Lys
107             20             25             30
108     Leu Leu Glu Arg Ser Leu Asp Gly Gln Ile Thr Glu Val Val Tyr Lys
109             35             40             45
110     Gly His His Asn His Pro Lys Pro Gln Pro Asn Arg Arg Leu Ala Ala
111             50             55             60
112     Gly Ala Val Pro Ser Ser Gln Ala Glu Glu Arg Tyr Asp Gly Val Ala
113             65             70             75             80
114     Pro Ile Glu Asp Lys Pro Ser Asn Ile Tyr Ser Asn Leu Cys Asn Gln
115             85             90             95
116     Ala His Ser Ala Gly Met Val Asp Asn Val Pro Gly Pro Ala Ser Asp
117             100            105            110
W--> 118     Asp Asp Val Asp Ala Gly Gly Gly Arg Pro Xaa Pro Gly Gly Met Thr
119             115            120            125
W--> 120     Xaa Met Met Met Met Thr Xaa Xaa Ser Lys Thr Gln Gly Lys Trp Asn
121             130            135            140
W--> 122     Leu Pro Gly Xaa Xaa Cys Xaa Ala Leu Xaa Gly Val Asn Gln Ile Pro
123             145            150            155            160
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125             165            170
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128 <211> LENGTH: 717
129 <212> TYPE: DNA
130 <213> ORGANISM: Zea mays
131 <220> FEATURE:
132 <221> NAME/KEY: unsure
133 <222> LOCATION: (11)
134 <223> OTHER INFORMATION: n=a,c,g or t
135 <220> FEATURE:
136 <221> NAME/KEY: unsure
137 <222> LOCATION: (15)
138 <223> OTHER INFORMATION: n=a,c,g or t
139 <220> FEATURE:
140 <221> NAME/KEY: unsure
141 <222> LOCATION: (610)
142 <223> OTHER INFORMATION: n=a,c,g or t
143 <220> FEATURE:
144 <221> NAME/KEY: unsure

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RAW SEQUENCE LISTING

DATE: 07/05/2002

PATENT APPLICATION: US/09/890,811B

TIME: 15:37:23

Input Set : N:\Crif3\06122002\I890811A.raw

Output Set: N:\CRF3\07052002\I890811B.raw

145 <222> LOCATION: (640)
 146 <223> OTHER INFORMATION: n=a,c,g or t
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 149 <222> LOCATION: (653)
 150 <223> OTHER INFORMATION: n=a,c,g or t
 151 <220> FEATURE:
 152 <221> NAME/KEY: unsure
 153 <222> LOCATION: (680)
 154 <223> OTHER INFORMATION: n=a,c,g or t
 155 <220> FEATURE:
 156 <221> NAME/KEY: unsure
 157 <222> LOCATION: (692)
 158 <223> OTHER INFORMATION: n=a,c,g or t
 159 <220> FEATURE:
 160 <221> NAME/KEY: unsure
 161 <222> LOCATION: (703)
 162 <223> OTHER INFORMATION: n=a,c,g or t
 163 <400> SEQUENCE: 3
 W-OK 164 **gacgcacccc ntctntttctc tccccctctc gtctcgtcca gtcgtccccc tctccccac** 60
 165 tctaccacgc tgccctgctc tgcgtcgtc gccatggcgt cctccacggg gagcttggag 120
 166 cacgggggggt tcacgttcac gccgccgcc ttcacacct ccttcaccga gctgctctcc 180
 167 ggcgacgggg acatgctagg agccggcgcc gatcaggagc ggtcgtcgcc gagggggctg 240
 168 ttccacgcgc gcgccagggg cgtgcccaag ttcaagtcgg cgcagcctcc cagcctgccc 300
 169 atctcgccgc cgcccatgtc gccttcctcc tacttcgcca tcccgccggg gctcagcccc 360
 170 gccgagctgc tcgactcgcc cgtcctgctc cactcgtcct ccaacatcct cctgctctcc 420
 171 accactggcg ccatcccgcc gcagaggttc gactggaaga aggccgccga cctgatcgcg 480
 172 tctcagctctc agcaagacgg cgacagccgg gctgcgcgcg ccggcttcga cgacttctcc 540
 173 ttcacacggg caccttcaac gccgtgcgcg cgcacacgac gacgacgtcc ttaccttcac 600
 W-OK 174 **gaagaagaan gtggagaggg ccctggccga cgggcgcacn aacgcaaaat cnggtacaaa** 660
 W-OK 175 **ggcgcgccac aaacaacccn aagccgggtg tncacgcgcc ggnaacttaa ttccgga** 717
 177 <210> SEQ ID NO: 4
 178 <211> LENGTH: 150
 179 <212> TYPE: PRT
 180 <213> ORGANISM: Zea mays
 181 <400> SEQUENCE: 4
 182 Met Ala Ser Ser Thr Gly Ser Leu Glu His Gly Gly Phe Thr Phe Thr
 183 1 5 10 15
 184 Pro Pro Pro Phe Ile Thr Ser Phe Thr Glu Leu Leu Ser Gly Ala Gly
 185 20 25 30
 186 Asp Met Leu Gly Ala Gly Ala Asp Gln Glu Arg Ser Ser Pro Arg Gly
 187 35 40 45
 188 Leu Phe His Arg Gly Ala Arg Gly Val Pro Lys Phe Lys Ser Ala Gln
 189 50 55 60
 190 Pro Pro Ser Leu Pro Ile Ser Pro Pro Pro Met Ser Pro Ser Ser Tyr
 191 65 70 75 80
 192 Phe Ala Ile Pro Pro Gly Leu Ser Pro Ala Glu Leu Leu Asp Ser Pro
 193 85 90 95
 194 Val Leu Leu His Ser Ser Ser Asn Ile Leu Ala Ser Pro Thr Thr Gly

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/890,811B

DATE: 07/05/2002

TIME: 15:37:23

Input Set : N:\Cr3\06122002\I890811A.raw

Output Set: N:\CRF3\07052002\I890811B.raw

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195          100          105          110
196      Ala Ile Pro Ala Gln Arg Phe Asp Trp Lys Lys Ala Ala Asp Leu Ile
197          115          120          125
198      Ala Ser Gln Ser Gln Gln Asp Gly Asp Ser Arg Ala Ala Ala Ala Gly
199          130          135          140
200      Phe Asp Asp Phe Ser Phe
201          145          150
203 <210> SEQ ID NO: 5
204 <211> LENGTH: 1961
205 <212> TYPE: DNA
206 <213> ORGANISM: Oryza sativa
207 <400> SEQUENCE: 5
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209      tcgctagctc gcttgcttgc tggctgagct gtggtacgct cgccatggcg tctctgacgg 120
210      gggggttgga ccacgggttc acgttcacgc cgccgccggt catcacgtcg ttcaaccgagc 180
211      tgctgtcggg gggcggtggg gacctgctcg gcgcggcgcg tgaggagcgc tcgcgagggg 240
212      ggttctccag aggcggagcg aggtgtggcg gcgggggtgc caagttcaag tccgcgcagc 300
213      cgccgagcct gccgctctcg ccgcgcgcgg tgtgcgcgtc gtctacttcc gccatcccgc 360
214      cggggtctcag cccaccgag ctgctcgact ccccgctcct cctcagctcc tcccatatct 420
215      tggcgttccc gaccaccggt gcaatcccgg ctacagagga cgactggaag gccagcgccg 480
216      atctcatcgc ttctcagcaa gatgacagcc gcggcgactt ctcttccac accaactccg 540
217      acgccatggc cgcgcaaccg gctctttcc ctctcttcaa ggagcaagag cagcaagtgg 600
218      tcgagtcgag caagaacggc gccgcgcgcg cgtcgagcaa caagagcggc ggcggcgagg 660
219      acaacaagct ggaggacggg tacaactgga ggaagtacgg gcagaagcag gtgaagggga 720
220      gcgagaaccc gaggagctac tacaagtgca cctacaacgg ctgctccatg aagaagaagg 780
221      tggagcgctc gctcgccgac ggccgcatca cccagatcgt ctacaagggc gcacacaacc 840
222      accccaagcc gctctccacc gccgcaacgc ctcttccggc tccaccgccc ccgctgccc 900
223      cgacgacctc gcggcgcccg gcgcggcgcg ggaccagta tccgcgcgca cgcgcgagaa 960
224      ctctctccgtc acgttcggcg acgacgagcg cgacaacgca tcgcaccgca gcgagggcga 1020
225      cgagcccga gccaagcgct ggaaaggagg atgctgacaa cgagggcgagc tccggcgagg 1080
226      tgggcggcgg cgcggcgggc aaccgggtgc gcgagccgag gcttgtgtgt cagacgctga 1140
227      gcgacatcga catctcgcac aacggcttcc ggtggaggaa gtacggccag aaggctcgtc 1200
228      agggcaaccc caaccgaagg agctactaca agtgacagac ggtgggctgc ccggtgcgga 1260
229      agcacgtgga gcgggctcg cacgacacgc gcgcgctgat caccacctac gagggcaagc 1320
230      acaaccacga cgtcccggta cggccgcggc ggcgggcgcg gacgcgcccc ggcgccggcg 1380
231      tcgcctacgg ctggggggcg tccggggcga cggacgtcgc cgcgcgccag caggggccc 1440
232      acaccctcga gatgctcccc aaccggcgcg gctctacgg cggctacggc gccggcgccc 1500
233      gcggcgccgc gttccgcgcg accaaggacg agcgggcgga cgacctgttc gtcgagtcgc 1560
234      tctctgtcta gtcgagccga gccgagccga gctgagctgg gccccacatc cccctgctcg 1620
235      ccacgtggcg tattttcgcc tcgccgtata cgtacggcgg tatagcgtac gtatacacgc 1680
236      tcgcacgccc tgcccaacac ggcaatacac acatacatc tctcgtacac acgtagtagc 1740
237      atacatatac agtatagtag gtgtagtggt tagctagcta gggagtgaga tccaatttgt 1800
238      tgattcggtg caggccactg ccacgtgggc cacaccgga acagtacacg cgtatacacc 1860
239      acacttgga tacgcgtacg tacgcacatg tacacgtagt tttgtgcctt tgtaactgct 1920
240      gagagacagg tcaaataaga ctgatgaatt tttcatttct t 1961
242 <210> SEQ ID NO: 6
243 <211> LENGTH: 488
244 <212> TYPE: PRT
245 <213> ORGANISM: Oryza sativa

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/890,811B

DATE: 07/05/2002
TIME: 15:37:24

Input Set : N:\Crf3\06122002\I890811A.raw
Output Set: N:\CRF3\07052002\I890811B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 368,387,405,408,445,447,453,462,489,490,491,500
Seq#:2; Xaa Pos. 123,129,135,136,148,149,151,154,163,164,167
Seq#:3; N Pos. 11,15,610,640,653,680,692,703

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:14; Line(s) 743

VERIFICATION SUMMARY

DATE: 07/05/2002

PATENT APPLICATION: US/09/890,811B

TIME: 15:37:24

Input Set : N:\Crf3\06122002\I890811A.raw

Output Set: N:\CRF3\07052002\I890811B.raw

L:5 M:270 C: Current Application Number differs, Wrong Format
L:63 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:360
L:64 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:420
L:65 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:480
L:118 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:112
L:120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:128
L:122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:144
L:124 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:160
L:164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:600
L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:660